

21374583.txt  
SEQUENCE LISTING

<110> Bander, Neil H.

<120> TREATMENT AND DIAGNOSIS OF CANCER

<130> Lois M. Kwasigroch: BZL 242/028

<140> US 09/357,708

<141> 1999-07-20

<150> US 08/895,914

<151> 1997-07-17

<150> US 08/838,682

<151> 1997-04-09

<150> US 60/016,976

<151> 1996-05-06

<150> US 60/022,125

<151> 1996-07-18

<160> 21

<170> PatentIn version 3.0

<210> 1

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<212> DNA

<213> Mus sp.

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tgaataatacc atacaactggg tgaagcagag ccatggaaag agccttgagt ggattggaaa 180  
catcaatcct aacaatggtg gtaccaccta caatcagaag ttcgaggaca aggccacatt 240  
gactgttagac aagtccctcca gtacagccta catggagctc cgccgcctaa catctgagga 300  
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&lt;210&gt; 2

&lt;211&gt; 391

&lt;212&gt; DNA

&lt;213&gt; Mus sp.

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gctctgcttc acccagtgtt ggttatattc agtgaatgtg tatccagaag tcttgcagga 300  
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&lt;210&gt; 3

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Mus sp.

&lt;400&gt; 3

Ser	Pro	Val	Arg	Asn	Cys	Arg	Cys	Pro	Leu	Gly	Pro	Ala	Ala	Thr	Val
					5			10						15	
Trp	Thr	Thr	Gly	Glu	Ala	Trp	Asp	Phe	Ser	Glu	Asp	Ile	Leu	Gln	Asp
					20		25					30			
Phe	Trp	Ile	His	Ile	His	Ile	Tyr	His	Thr	Leu	Gly	Glu	Ala	Glu	Pro
						40					45				

## 21374583.txt

Trp Lys Glu Pro Val Asp Trp Lys His Gln Ser Gln Trp Trp Tyr His  
50 55 60

Leu Gln Ser Glu Val Arg Gly Gln Gly His Ile Asp Cys Arg Gln Val  
65 70 75 80

Leu Gln Tyr Ser Leu His Gly Ala Pro Gln Pro Asn Ile Gly Phe Cys  
85 90 95

Ser Leu Leu Cys Ser Trp Leu Glu Leu Leu Leu Gly Pro Arg His  
100 105 110

His Ser His Ser Leu Leu Ser Gln Asn Asp Thr  
115 120

<210> 4

<211> 130

<212> PRT

<213> Mus sp.

<400> 4

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20 25 30

Lys Thr Ser Gly Tyr Thr Phe Thr Glu Tyr Thr Ile His Trp Val Lys  
35 40 45

Gln Ser His Gly Lys Ser Leu Glu Trp Ile Gly Asn Ile Asn Pro Asn  
50 55 60

Asn Gly Gly Thr Thr Tyr Asn Gln Lys Phe Glu Asp Lys Ala Thr Leu  
65 70 75 80

Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu  
85 90 95

Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala Ala Gly Trp Asn Phe  
100 105 110

Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Ala Lys Thr  
115 120 125

Thr Pro  
130

<210> 5

<211> 125

<212> PRT

<213> Mus sp.

**21374583.txt**

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 1 5 10 15

Ser Leu Asp Leu Asn Trp Ser Leu Gly Leu Gln Gly Tyr Pro Ala Arg  
 20 25 30

Leu Leu Asp Thr His Ser Leu Asn Ile Pro Tyr Thr Gly Ser Arg Ala  
 35 40 45

Met Glu Arg Ala Leu Ser Gly Leu Glu Thr Ser Ile Leu Thr Met Val  
 50 55 60

Val Pro Pro Thr Ile Arg Ser Ser Arg Thr Arg Pro His Leu Thr Ser  
 65 70 75 80

Pro Pro Val Gln Pro Thr Trp Ser Ser Ala Ala His Leu Arg Ile Leu  
 85 90 95

Gln Ser Ile Ile Val Gln Leu Val Gly Thr Leu Thr Thr Gly Ala Lys  
 100 105 110

Ala Pro Leu Ser Gln Pro Ser Gln Pro Lys Arg His Pro  
 115 120 125

&lt;210&gt; 6

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Mus sp.

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 catggaaaaga gccttgagtg gattggaaac atcaatccta acaatggtgg taccacctac 180  
 aatcagaagt tcgaggacaa ggccacattg actgttagaca agtcctccag tacagcctac 240  
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 aactttgact actggggcca aggcaccact ctcacagtct cctca 345

&lt;210&gt; 7

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Mus sp.

&lt;400&gt; 7

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ggaccttgtct	acagtcaatg	tggccttgc	ctcgaaacttc	tgattgttagg	tggtaccacc	180
attgttagga	ttgatgttcc	caatccactc	aaggctctt	ccatggctct	gcttcaccca	240
gtgtatggta	tattcagtga	atgtgtatcc	agaagtcttg	caggatatcc	tcactgaagt	300
cccaggcttc	accagttcag	gtccagactg	ttgcagctgg	acctc		345

&lt;210&gt; 8

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Mus sp.

&lt;400&gt; 8

Glu	Val	Gln	Leu	Gln	Gln	Ser	Gly	Pro	Glu	Leu	Val	Lys	Pro	Gly	Thr
1				5				10				15			

Ser	Val	Arg	Ile	Ser	Cys	Lys	Thr	Ser	Gly	Tyr	Thr	Phe	Thr	Glu	Tyr
		20				25				30					

Thr	Ile	His	Trp	Val	Lys	Gln	Ser	His	Gly	Lys	Ser	Leu	Glu	Trp	Ile
			35		40					45					

Gly	Asn	Ile	Asn	Pro	Asn	Asn	Gly	Gly	Thr	Thr	Tyr	Asn	Gln	Lys	Phe
	50				55				60						

Glu	Asp	Lys	Ala	Thr	Leu	Thr	Val	Asp	Lys	Ser	Ser	Ser	Thr	Ala	Tyr
	65				70				75					80	

Met	Glu	Leu	Arg	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Tyr	Cys
			85					90				95			

Ala	Ala	Gly	Trp	Asn	Phe	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Thr	Leu	Thr
			100					105				110			

val	Ser	Ser	
	115		

&lt;210&gt; 9

&lt;211&gt; 363

&lt;212&gt; DNA

&lt;213&gt; Mus sp.

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gtaggagaga	gggtcacctt	gacctgcaag	gccagtgaga	atgtggttac	ttatgtttcc												
				Page 5													

## 21374583.txt

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tacactgggg tccccgatcg cttcacaggc	agtggatctg caacagattt cactctgacc	240
atcagcagtg tgccaggctga agaccttgca	gattatcaact gtggacaggg ttacagctat	300
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gta		363

&lt;210&gt; 10

&lt;211&gt; 363

&lt;212&gt; DNA

&lt;213&gt; Mus sp.

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gtaccggttg gatccccgt atatcagcag ttttaggagac	tgctctggtt tctgttata	240
ccagggaaaca taagtaacca cattctcaact ggccttgcag	gtcaaggta ccctctctcc	300
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taa		363

&lt;210&gt; 11

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Mus sp.

&lt;400&gt; 11

Leu Tyr Gly Ala Asp Gly Asn Ile Val Met Thr Gln Ser Pro Lys Ser	
1 5 10 15	

Met Ser Met Ser Val Gly Glu Arg Val Thr Leu Thr Cys Lys Ala Ser	
20 25 30	

Glu Asn Val Val Thr Tyr Val Ser Trp Tyr Gln Gln Lys Pro Glu Gln	
35 40 45	

Ser Pro Lys Leu Leu Ile Tyr Gly Ala Ser Asn Arg Tyr Thr Gly Val	
50 55 60	

Pro Asp Arg Phe Thr Gly Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr	
Page 6	

21374583.txt  
65                70                75                80  
Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Asp Tyr His Cys Gly Gln  
85                90                95  
Gly Tyr Ser Tyr Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile  
100                105                110  
Lys Arg Ala Asp Ala Ala Pro Thr Val  
115                120

<210> 12  
<211> 114  
<212> PRT  
<213> Mus sp.

<400> 12  
Tyr Met Glu Leu Met Gly Thr Leu Pro Asn Leu Pro Asn Pro Cys Pro  
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Cys Gln Glu Arg Gly Ser Pro Pro Ala Arg Pro Val Arg Met Trp Leu  
20                25                30  
Leu Met Phe Pro Gly Ile Asn Arg Asn Gln Ser Ser Leu Leu Asn Cys  
35                40                45  
Tyr Thr Gly His Pro Thr Gly Thr Leu Gly Ser Pro Ile Ala Ser Gln  
50                55                60  
Ala Val Asp Leu Gln Ile Ser Leu Pro Ser Ala Val Cys Arg Leu  
65                70                75                80  
Lys Thr Leu Gln Ile Ile Thr Val Asp Arg Val Thr Ala Ile Arg Thr  
85                90                95  
Arg Ser Glu Gly Gly Pro Ser Trp Lys Asn Gln Leu Met Leu His Gln  
100                105                110  
Leu Tyr

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<211> 116  
<212> PRT  
<213> Mus sp.

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Val His Val Ser Arg Arg Glu Gly His Leu Asp Leu Gln Gly Gln Glu  
Page 7

21374583.txt  
20 25 30  
Leu Cys Phe Leu Val Ser Thr Glu Thr Arg Ala Val Ser  
40 45  
Ile Arg Gly Ile Gln Pro Val His Trp Gly Pro Arg Ser  
55 60  
Gln Trp Ile Cys Asn Arg Phe His Ser Asp His Gln Gln  
70 75 80  
Arg Pro Cys Arg Leu Ser Leu Trp Thr Gly Leu Gln Leu  
85 90 95  
Val Arg Arg Gly Asp Gln Ala Gly Asn Lys Thr Gly Cys  
100 105 110  
Cys  
  
sp.

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gagcagtctc ctaaactgct gatatacggg gcatccaacc ggtacactgg ggtccccgat 180  
cgcttcacag gcagtggatc tgcaacagat ttcactctga ccatcagcag tgtgcaggct 240  
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caagcaatttta ggagactgct ctggttttcttg ttgataccag gaaaacataag taaccacatt 240

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ctcaactggcc ttgcagggtca aggtgacccct ctctcctact gacatggaca tggatttggg	300
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&lt;210&gt; 16

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Mus sp.

&lt;400&gt; 16

Asn Ile Val Met Thr Gln Ser Pro Lys Ser Met Ser Val Gly			
1	5	10	15
10	15		

Glu Arg Val Thr Leu Thr Cys Lys Ala Ser Glu Asn Val Val Thr Tyr			
20	25	30	
30			

Val Ser Trp Tyr Gln Gln Lys Pro Glu Gln Ser Pro Lys Leu Leu Ile			
35	40	45	
45			

Tyr Gly Ala Ser Asn Arg Tyr Thr Gly Val Pro Asp Arg Phe Thr Gly			
50	55	60	
60			

Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr Ile Ser Ser Val Gln Ala			
65	70	75	80
75	80		

Glu Asp Leu Ala Asp Tyr His Cys Gly Gln Gly Tyr Ser Tyr Pro Tyr			
85	90	95	
95			

Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys	
100	105

&lt;210&gt; 17

&lt;211&gt; 321

&lt;212&gt; DNA

&lt;213&gt; Mus sp.

<400> 17	
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ggacaatctc ctaaaactact gatttattgg gcatccactc ggcacacgtgg agtcccctgat	180
cgcttcacag gcagtggatc tgggacagac ttcaactctca ccattactaa tggtcagtct	240
gaagacttgg cagattattt ctgtcagcaa tataacagct atccctctcac gttcggtgct	300
gggaccatgc tggacctgaa a	321

&lt;210&gt; 18

## 21374583.txt

&lt;211&gt; 321

&lt;212&gt; DNA

&lt;213&gt; Mus sp.

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agatccactg	c当地gtgaagc	gatcaggac	tccagtgtgc	cgagtggatg	cccaataaat	180
cagtagttt	ggagattgtc	ctggtttctg	ttgataccag	tctacagcag	taccacatc	240
ttgactggcc	ttacagatga	tgctgaccct	gtctctact	gatgtggaca	tgaatttgc	300
agactgggtc	atcacaatgt	c				321

&lt;210&gt; 19

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; MUS sp.

&lt;400&gt; 19

Asp	Ile	Val	Met	Thr	Gln	Ser	His	Lys	Phe	Met	Ser	Thr	Ser	Val	Gly
1					5			10						15	

Asp	Arg	Val	Ser	Ile	Ile	Cys	Lys	Ala	Ser	Gln	Asp	Val	Gly	Thr	Ala
	20						25					30			

Val	Asp	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ser	Pro	Lys	Leu	Leu	Ile
	35			40					45						

Tyr	Trp	Ala	Ser	Thr	Arg	His	Thr	Gly	Val	Pro	Asp	Arg	Phe	Thr	Gly
50					55				60						

Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Thr	Asn	Val	Gln	Ser
65				70				75					80		

Glu	Asp	Leu	Ala	Asp	Tyr	Phe	Cys	Gln	Gln	Tyr	Asn	Ser	Tyr	Pro	Leu
	85					90						95			

Thr	Phe	Gly	Ala	Gly	Thr	Met	Leu	Asp	Leu	Lys					
	100						105								

&lt;210&gt; 20

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Mus sp.

## 21374583.txt

&lt;400&gt; 20

Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala  
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Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr  
20 25 30

Tyr Met Asn Asn Trp Val Lys Gln Ser Pro Gly Lys Ser Leu Glu Trp  
35 40 45

Ile Gly Asp Ile Asn Pro Gly Asn Gly Gly Thr Ser Tyr Asn Gln Lys  
50 55 60

Phe Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Thr Ala  
65 70 75 80

Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr  
85 90 95

Cys Ala Arg Gly Tyr Tyr Ser Ser Ser Tyr Met Ala Tyr Tyr Ala Phe  
100 105 110

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser  
115 120 125

&lt;210&gt; 21

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Mus sp.

&lt;400&gt; 21

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Leu Gly  
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Asp Ile Ser Asn  
20 25 30

Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Gly Ser Pro Lys Leu Leu  
35 40 45

Ile Tyr Tyr Ala Ser Arg Leu His Ser Gly Val Pro Ser Arg Phe Ser  
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Leu Glu  
65 70 75 80

Gln Glu Asp Ile Ala Thr Tyr Phe Cys Gln Gln Gly Asn Thr Leu Pro  
85 90 95

Pro Arg Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys  
100 105